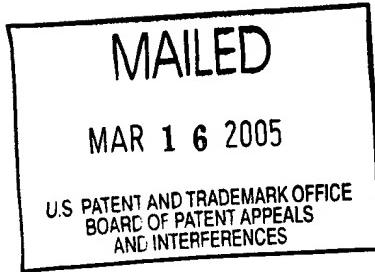


The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 37

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES



Ex parte ROBERT K. RIFFEE

Appeal No. 2004-0911  
Application No. 08/800,574

ON BRIEF

Before THOMAS, KRASS, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-30, which are all the claims in the application.

We affirm-in-part.

BACKGROUND

The invention relates to transmitting video and audio over narrowband radio frequency (rf) links. Representative claim 19 is reproduced below.

19. A narrowband video codec for transmitting and receiving compressed video and audio data signals over a rf link comprising:

a first digital signal processor for converting analog video signals into digital video signals and for compressing the digital video signals into video bytes;

a second digital signal processor for decompressing received digital video bytes into digital video signals and for converting the decompressed digital video signals into analog video signals;

a third digital signal processor for converting analog audio signals into digital audio signals, for compressing the digital audio signals into audio bytes, for decompressing received audio bytes into digital audio signals, and for converting the decompressed digital audio signals into analog audio signals;

means for periodically refreshing the transmitted video signals;

means for running multiple compression and decompression algorithms on all three digital signal processors;

a solid state memory; and

means for emulating a disk access system of a computer using solid state memory components to store file sequences with compression/decompression algorithm data.

The examiner relies on the following references:

Paneth et al. (Paneth)	5,119,375	Jun. 2, 1992
Kuzma	5,389,965	Feb. 14, 1995
Rostoker et al. (Rostoker)	5,784,572	Jul. 21, 1998 (filed Dec. 29, 1995)

Appeal No. 2004-0911  
Application No. 08/800,574

Peters	5,577,190	Nov. 19, 1996 (filed Jul. 5, 1994)
Schillaci et al. (Schillaci)	5,583,912	Dec. 10, 1996 (filed Nov. 14, 1994)
Yurt et al. (Yurt)	6,002,720	Dec. 14, 1999 (filed Apr. 10, 1996)

Claims 1-6 and 9-18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kuzma, Yurt, and Paneth.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kuzma, Yurt, Paneth, and Schillaci.

Claims 19, 20, and 23-30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kuzma, Peters, and Rostoker.

Claims 21 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kuzma, Peters, Rostoker, and Schillaci.

We refer to the Final Rejection (Paper No. 20) and the Examiner's Answer (Paper No. 33) for a statement of the examiner's position and to the Brief (Paper No. 31) and the Reply Brief (Paper No. 34) for appellant's position with respect to the claims which stand rejected.

OPINION

Appellant advances two separate arguments in response to the § 103 rejections applied against claims 1 through 30. Appellant asserts, and we agree, that the first argument applies to claims 1 through 18, and the second to claims 19 through 30.

Instant claim 1 (with claims 2-18 depending) requires a means for framing an output stream of control, data, and error correction bits, wherein each frame comprises an identical sequence of bytes. The claim further sets forth a particular sequence of bytes included in each frame.

Appellant contests the examiner's finding that Yurt suggests a portion of the frame structure recited in claim 1. According to appellant, Figure 8d of Yurt shows items made up of frames, consisting of video or audio bytes, but no one frame contains both audio and video bytes. The examiner responds (Answer at 12) that, in view of the instant specification, the meaning of "frame" and "means for framing" are different from the commonly accepted meanings in the relevant art. The "means for framing" do nothing more than group some combination of data together. As such, each of items 1, 2, or 3 of Yurt's Figure 8d may be considered a "frame," consistent with instant claim 1. Appellant responds in the Reply Brief that, if the meaning of the term "frame" has been modified by the instant specification, the meaning has not been broadened to meet the examiner's interpretation of the term.

Yurt's Figures 8a through 8e depict data structures and data blocking for items in the disclosed audio and video distribution system. The combination of audio frames,

Appeal No. 2004-0911  
Application No. 08/800,574

video frames, and data frames comprise the elements of a single item. Figure 8d shows a block representation of three illustrative items that may be stored in the source material library 111 (Fig. 2a; col. 6, l. 1 et seq.). Col. 18, ll. 45-63.

Claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art. In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983). While it may be that Yurt merely uses terminology different from the instant claims in describing the sequenced bytes of data, we agree with appellant that the examiner has not established that the artisan would consider an item to be a “frame” within the meaning of the instant claims.

Moreover, the rejection appears to pick and choose from the teachings of the references in an attempt to reconstruct the invention in hindsight. For example, the rejection relies on Kuzma (a video telephone apparatus) for a teaching of “control bytes,” then turns to Yurt (data storage in a source material library) for sequences of bytes that are to be combined with the control bytes. Even assuming that each item described by Yurt may properly be regarded as a single “frame,” we would still have to agree with appellants that the rejection fails to set forth a prima facie case for obviousness.

Since Schillaci fails to remedy the deficiencies in the rejection applied against independent claim 1, we cannot sustain either of the § 103 rejections applied against claims 1 through 18. We do not sustain the rejection of claims 1-6 and 9-18 under 35 U.S.C. § 103 as being unpatentable over Kuzma, Yurt, and Paneth, nor the rejection of

Appeal No. 2004-0911  
Application No. 08/800,574

claims 7 and 8 under 35 U.S.C. § 103 as being unpatentable over Kuzma, Yurt, Paneth, and Schillaci.

Turning to the second controversy, appellant argues that each of claims 19 and 29 requires three digital signal processors. In accordance with the rules in effect at the time of filing the briefs, we select claim 19 as representative in our review of the rejection of claims 19, 20, and 23-30 under 35 U.S.C. § 103 as being unpatentable over Kuzma, Peters, and Rostoker. See 37 CFR § 1.192(c)(7) (1997).

According to appellant, there are no digital signal processors ("DSP's") in the Kuzma reference, which the rejection relies upon for the relevant teaching. Kuzma, instead, discloses conventional codec devices, which may perform compression and decompression of signals. Further, according to appellant, a codec circuit has one compression and decompression algorithm, whereas in the instant invention the DSP's have several compression and decompression algorithms stored as programs. (Brief at 8.)

Kuzma describes a video telephone system (Fig. 2) that includes a video codec 500 and an audio codec 185. Figure 5 depicts video codec 500 in detail. Col. 8, l. 12 et seq. Pre-processor 510 performs spatial filtering according to an algorithm controlled by a control signal from host processor 160, effectively low-pass filtering the luminance signal by digitally averaging the magnitudes of consecutive pixels. The spatial filtering technique removes high-frequency detail from the video frame in what is essentially a

Appeal No. 2004-0911  
Application No. 08/800,574

digital low-pass filtering operation. The output of pre-processor 510 to subtractor 513 is a digitally filtered video frame. Col. 8, l. 47 - col. 9, l. 6.

Video codec 500 is a motion-compensated, interframe and intraframe coding system in which compression is enhanced by coding the movement of entire blocks of pixels between frames and then transmitting a small amount of data to indicate such movement. Analog video signals input to codec 500 are digitized and preprocessed with spatial and temporal filters (via pre-processor 510), resulting in separate video frames of luminance and chrominance pixels. The luminance and chrominance frames are segmented into 16 X 16 blocks. In discrete cosine transformer 514, the image undergoes a two-dimensional mathematical transformation in software, of an 8 X 8 pixel block replaced by an 8 X 8 block of DCT coefficents, with each coefficient including information regarding the frequency content of the row and column. The output of DCT block 514 is normalized (block 515) and quantized (block 516). Col. 9, l. 7 - col. 10, l. 15. Further processing of the video signal follows. Col. 10, l. 15 et seq.

If appellant's arguments in the briefs are based on the view that the examiner's reference to "inherency" refers to the doctrine of inherency, we do not reach the question as to whether the coding and decoding that Kuzma describes "inherently" requires a digital signal processor. In our view, Kuzma, in express terms, describes digital processing of a video signal, and thus expressly describes a digital signal processor within the meaning of the claim. In addition to the described compression

Appeal No. 2004-0911  
Application No. 08/800,574

and decompression of video signals, the reference further describes compression and decompression of audio signals (see col. 5, ll. 33-42).

Kuzma, in fact, describes digital signal processing in considerably more detail than appellant's disclosure. Compare, for example, the instant specification description of the operation of "DSP" 304, which compresses the video signals in accordance with a video compression program (spec. at 5, l. 6 et seq.). The specification reveals the video compression and decompression to be implemented by a discrete cosine transform. (Id. at 15, ll. 11-13.) Appellant's implication, at page 8 of the Brief, that a digital signal processor requires the capability of performing more than one algorithm -- even assuming a foundation in fact -- does not address Kuzma's disclosure of selecting one of several algorithms (col. 8, l. 47 - col. 9, l. 6).

Further, we agree with the examiner that appellant's submitted exhibits, attached to the Brief, do not establish that Kuzma lacks any digital signal processors. In addition, appellant's observation (Brief at 9) relating to word searches on the USPTO web site tends to show that some U.S. patents contain the term "codec," that some contain the terms "codec" and "DSP," and that more U.S. patents contain the term "DSP" or "digital signal processor" than contain the term "codec." The examiner does not, nor do we, see any particular relevance to the matter at hand. The relevance, if any, is further remote upon noting that the instant claims do not contain the term "DSP."

We thus are not persuaded that Kuzma fails to disclose any digital signal processors. Further, to the extent that appellant's remarks at page 9 of the Brief might

Appeal No. 2004-0911  
Application No. 08/800,574

be construed as alleging that Kuzma's system has two, rather than three, digital signal processors, appellant has not shown error in the examiner's finding that video codec 500 may be considered as two separate processors, in view of the two distinct functions relating to compression of outgoing signals and decompression of incoming signals.

We thus sustain the rejection of claims 19, 20, and 23-30 under 35 U.S.C. § 103 as being unpatentable over Kuzma, Peters, and Rostoker. We also sustain the rejection of claims 21 and 22 under 35 U.S.C. § 103 as being unpatentable over Kuzma, Peters, Rostoker, and Schillaci. Appellant relies on the same arguments that we have addressed supra, and thus fails to show error in the rejection of claims 21 and 22.

We have considered all of appellant's arguments in making our determinations. Arguments not relied upon are deemed waived. See 37 CFR § 1.192(a) (1997) ("Any arguments or authorities not included in the brief will be refused consideration by the Board of Patent Appeals and Interferences, unless good cause is shown."); 37 CFR § 41.37(c)(1)(vii) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)) ("Any arguments or authorities not included in the brief or a reply brief filed pursuant to § 41.41 will be refused consideration by the Board, unless good cause is shown.").

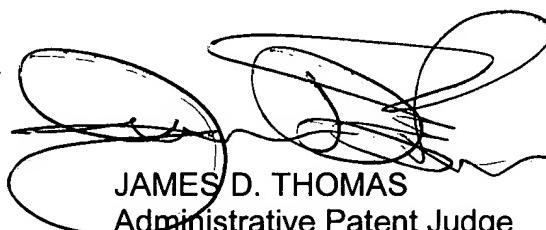
Appeal No. 2004-0911  
Application No. 08/800,574

CONCLUSION

The rejection of claims 1-18 under 35 U.S.C. § 103 is reversed. The rejection of claims 19-30 under 35 U.S.C. § 103 is affirmed. The examiner's decision in rejecting claims 1-30 is thus affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a). See 37 CFR § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

  
JAMES D. THOMAS )  
Administrative Patent Judge )  
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 )  
  
ERROL A. KRASS ) BOARD OF PATENT  
Administrative Patent Judge ) APPEALS  
 ) AND  
 ) INTERFERENCES  
 )  
  
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Appeal No. 2004-0911  
Application No. 08/800,574

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